

*The* ROYAL MARSDEN

NHS Foundation Trust

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# Mitomycin-C and Capecitabine chemotherapy with radiotherapy

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**GI Unit**

**Patient Information**



**NHS**



## Introduction

Your doctors have suggested that you may benefit from a course of Mitomycin-C and Capecitabine chemotherapy treatment alongside your radiotherapy. The chemotherapy can make the radiotherapy more effective. Your medical oncology team will have discussed the potential risks and benefits of chemotherapy with you and your radiotherapy team will have discussed the risks and benefits of radiotherapy with you. If you are still unsure about the benefits, then please ask your doctor. This leaflet explains what you can expect from the chemotherapy you will receive.

You will be given a separate information sheet that explains your radiotherapy treatment and its side effects.

## Treatment plan

**Mitomycin-C** is a chemotherapy drug. It is a clear light blue liquid given as an injection into a vein through a cannula - this is only required on the first day of treatment as the effects last for the five weeks of radiotherapy.

**Capecitabine** is a tablet form of chemotherapy. You will need to swallow the tablets whole with a glass of water twice a day within 30 minutes after meals, for the duration of your radiotherapy (five weeks). Capecitabine works best if it is broken down in the stomach with food. Take the tablets in the morning after breakfast and then after your evening meal. The doses should be spaced 10–12 hours apart. The doctors in clinic will see you and you will have your blood tests monitored while you are on chemotherapy. Treatment may be delayed if your blood count is not at a suitable level.

## DPD testing before treatment

Before starting this treatment, you should have a blood test to check whether you have low levels of dihydropyrimidine dehydrogenase (DPD). This is called DPD deficiency.

People who have low DPD levels could make the side effects of certain chemotherapy drugs worse and this could develop into serious or life-threatening side effects. These group of drugs are called fluoropyrimidines, such as fluorouracil (5FU) and capecitabine. You will not know without a test if you have DPD deficiency, as there are no symptoms. You can talk to your cancer doctor about your risk of having DPD deficiency before you start treatment.

## Interacting drugs

Some medicines can interact with chemotherapy or be harmful when you are having chemotherapy. This includes medicines you can buy in a shop or chemist. Tell your doctor about any medicines you are taking, including over-the-counter drugs, complementary therapies and herbal drugs.

Always let your doctor know what other medicines you are taking so that they can check that they are safe to take together.

This is especially important if you are taking warfarin (a tablet for thinning the blood).

## Side effects

All drugs can have some side effects and this includes Capecitabine and Mitomycin-C chemotherapy. These vary and for some people they may not occur.

### **The more common side effects are:**

- **Low blood count** – chemotherapy temporarily reduces the rate at which blood cells are produced in your bone marrow.

This may cause:

- anaemia (low red cell count) – Red blood cells carry oxygen around the body. If the number of red blood cells is low, you may be tired and breathless. You may need blood transfusions.
- neutropenia (low white cell count), which may increase your risk of developing an infection.

**If you feel unwell at any time or have a temperature (37.5°C / 99.5°F or higher), you should contact the hospital immediately** as you may need to be admitted for intravenous antibiotics. For further information, please refer to The Royal Marsden booklet *Chemotherapy; your questions answered*.

- Symptoms of an infection may include: feeling shaky, a sore throat, a cough, diarrhoea or needing to pass urine a lot.
  - Thrombocytopenia (low platelet count) - platelets are cells that help the blood to clot. If you have any bruising or bleeding you cannot explain, tell your doctor. This includes nosebleeds, bleeding gums, blood spots or rashes on the skin - you may need platelet transfusions
- **Tiredness and lethargy** – during your chemotherapy, you may become tired more easily after normal activities. It is often worse towards the end of treatment and for some weeks afterwards. This is quite normal and usually occurs with all types of chemotherapy. Your tiredness should resolve in time. Try to pace yourself and get as much rest as you need. It helps to balance this with some gentle exercise, such as short walks.

**The less common side effects are:**

- **Headaches** – tell your doctor so that painkillers can be prescribed.
- **Hair thinning** – occasionally thinning of the hair may occur but you're unlikely to lose all the hair from your head. However, a wig is rarely needed and your hair will regrow six to eight weeks after treatment is completed. For further information please refer to the Macmillan booklet *Coping with hair loss*
- **Eye problems, sore eyes (conjunctivitis)** – we can prescribe eye drops to soothe your eyes and decrease the irritation. Increased production of tears is temporary. If your eyes become sore or inflamed (conjunctivitis) the doctor may prescribe some eye drops.

- **Sore mouth and mouth ulcers** – mouth sores can occur on the tongue, the sides of the mouth or in the throat. Mouth sores or bleeding gums can lead to an infection. Keep your mouth clean and healthy by drinking plenty of fluids and carrying out good oral hygiene by brushing your teeth gently after eating, and at bedtime, with a very soft toothbrush. If you develop a sore mouth, we can prescribe mouthwash to help prevent or treat mouth infections and reduce any soreness.
- **Nausea and vomiting** – chemotherapy sometimes causes this. It can usually be managed with anti-sickness (anti-emetic) drugs.
- **Tissue damage (extravasation)** – if Mitomycin-C leaks into the tissue around the veins, it can damage the tissue in that area. Tell the nurse immediately if you notice any stinging or burning around the vein while it is being given or if the injection site becomes red or swollen when you are at home.
- **Skin and nail changes** – such as change in colour or the appearance of bands may sometimes occur. Mitomycin-C may cause a skin rash. Always tell your doctor or nurse about any skin and nail changes. They can give you advice and may prescribe creams or medicines to help. Any changes to your skin and nails are usually temporary and improve when treatment finishes.
- **Soreness and redness of the hands and feet (palmar-plantar syndrome)** – you may find that the palms of your hands and the soles of your feet become sore and red or dark. The skin may become dry, itchy and peel. A simple moisturiser, will help prevent dryness. It can help to keep your hands and feet cool and to avoid tight-fitting socks, shoes and gloves. Tell your doctor or nurse if this becomes a problem as they may temporarily stop the capecitabine tablets.

- **Effect on the lungs** – Mitomycin-C may cause some changes to lung tissue. Tell your doctor immediately if you notice any coughing, wheezing or breathlessness, as this may indicate early signs of lung toxicity.

It is important that you inform your doctor at your next hospital visit if you experience any of these side effects. With certain side effects, a treatment break or dose reduction may be necessary. If you have any concerns regarding these side effects, please contact us (see contact details on page 9).

- **Chest pain** – patients receiving capecitabine have reported episodes of chest pain, discomfort or a feeling of tightness or heaviness across the centre of the chest and/or palpitations (a sensation of a racing and irregular heartbeat). These symptoms may occur suddenly and the duration can vary. Sometimes they resolve within minutes although they may last for longer.

The chest pain is caused by a temporary narrowing of the blood vessels supplying the heart. This is reversible once the chemotherapy is stopped. This type of chest pain is called angina and can lead to a heart attack. It may be more common in people with a history of heart disease, but can occur in anyone. Always let your doctor know if you have a history of problems with your heart.

You may have tests to see how well your heart is working before, during and sometimes after treatment. There are many different causes of chest pain, most of which are unrelated to the chemotherapy. If you develop any of these symptoms you should stop taking capecitabine until you are told otherwise and go immediately to your nearest accident and emergency department and take this leaflet with you. Afterwards, you should contact your hospital team at The Royal Marsden.

- **Skin reactions** – Very rarely you may develop a severe skin reaction whilst on capecitabine. If you experience tender red skin patches which subsequently blister, please seek urgent medical advice. The skin changes may be preceded by fever, chest symptoms and photophobia (a need to squint or close your eyes, which is worse in bright light). These symptoms may be caused by conditions called Toxic Epidermal Necrolysis (TEN) and Stevens Johnson Syndrome (SJS) and if so, these require urgent treatment.
- **Diarrhoea** – it is important that you inform the hospital team if you develop significant diarrhoea (more than four times in 24 hours). They may advise you to take anti-diarrhoeal medication or temporarily stop the capecitabine tablets. It is usually easy to control. Make sure that you drink plenty of fluids, at least two litres (three and a half pints) of fluids every day.
- **Constipation** – this may make you constipated and cause tummy pain. Drinking at least two litres (three and a half pints) of fluids every day will help. Try to eat more foods that contain fibre, such as fruit, vegetables and wholemeal bread. Also try to do some regular, gentle exercise.

## Fertility, pregnancy and breastfeeding

- **Fertility** – chemotherapy can damage the testis or ovary. This may affect your ability to conceive (or father a child). Infertility can be temporary or permanent. Sometimes, in women, chemotherapy can lead to premature menopause. If relevant to you, you may wish to discuss the issue of fertility with your doctor before treatment is started.
- **Pregnancy** – during chemotherapy and for up to a year afterwards, if sperm or eggs are produced they may be abnormal. Treatment can also harm an unborn child. We recommend that you or your partner use a barrier method of contraception (such as condoms) during treatment and for one year afterwards. If you know you are pregnant before starting treatment or become pregnant during treatment, you must tell your doctor immediately.



- **Breastfeeding** – there is a risk of harm to a child who is being breastfed since the drug may be concentrated in the milk. It is very important that women do not breastfeed while receiving chemotherapy.

## Blood clots

Some cancers increase the risk of developing blood clots. Chemotherapy drugs can also cause an increase in the risk of patients developing blood clots whilst they are on treatment. The most common place for blood clots to form is in the calf. This is called a deep vein thrombosis (DVT) and causes the leg to swell. If a part of the clot breaks free, it may travel to the lungs, causing shortness of breath or chest pain. This is called a pulmonary embolus (PE).

Blood clots can be life threatening and treatment with blood-thinning drugs (anti-coagulants) is usually given to help ‘dissolve’ the clot and prevent further problems. Please inform your doctor immediately if you are worried you may have a blood clot.

Airline travel is also associated with an increased risk of blood clots. It is important that you inform your hospital team of any travel plans whilst you are on treatment.

We have listed the most common side effects of this chemotherapy. You may experience some or several of these side effects listed above and they may be mild, moderate or severe. Some can occasionally be life-threatening or lead to death and occur in 0.5-5% of cases (less than one in 100 people). All side effects will be discussed with you, however please raise any questions that you may have with your medical team or Clinical Nurse Specialist (CNS).

As with all drugs, there may be other side effects not mentioned here that you may experience. Because of the risk of side effects, it is important that you:

- **Always** tell your doctor if you suffer from any of these side effects, or if you have experienced any new symptoms since your last visit. Your doctor can help you by giving you medication or advice, to reduce or stop these side effects from occurring in the future.
- **Always** tell your doctor about any other medicine you are taking or planning to take, including herbal and complementary therapies.
- **Always** consult your doctor before having any other procedure, for example, dental work or vaccinations.

## Contact details

Please contact us if you have any concerns or queries:

### Sutton

Medical Day Unit	020 8661 3174 (NHS patients)
Medical Day Unit	020 8661 6670 (Private patients)
Clinical Nurse Specialist/Key Worker	

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Tel: .....

### Chelsea

Medical Day Unit	020 7808 2325 / 2320 (NHS patients)
Medical Day Unit	020 7811 8092 (Private patients)
Clinical Nurse Specialist/Key Worker	

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Tel: .....

**Medicines Information Service:** you can contact the service via The Royal Macmillan Hotline (details below). The Medicines Information Service is available Monday to Friday, 9.30am–5pm (you can leave a message on the answer machine outside these hours).

Email: [medicines.information@rmh.nhs.uk](mailto:medicines.information@rmh.nhs.uk) giving full details of your enquiry and a contact telephone number.

Alternatively, please call:

**The Royal Marsden Macmillan Hotline:** 020 8915 6899  
(available 24 hours a day, 7 days a week)

## Notes and questions

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## References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

Telephone: Chelsea 020 7811 8438 / 020 7808 2083

Sutton 020 8661 3759 / 3951

Email: [patientcentre@rmh.nhs.uk](mailto:patientcentre@rmh.nhs.uk)

No conflicts of interest were declared in the production of this booklet.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

The patient information service is generously supported by The Royal Marsden Charity.

[royalmarsden.org](http://royalmarsden.org)

Registered Charity No.1095197



Revised June 2023. Planned review June 2026  
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